psychosocial factors such as clinical depression, hostility/anger, and acute/chronic mental stress have cardiovascular risk gradients comparable to or steeper than the risk gradients of more traditional risk factors such as elevated cholesterol (2,4). Furthermore, it is well known that emotional outbursts in asymptomatic but vulnerable individuals can trigger acute coronary syndromes (7). We wonder what the reason is for such an omission in cardiovascular risk stratification and primary prevention, and we call for recognition of psychosocial factors because whatever physiologic or behavioral mechanisms link them to the pathogenesis and expression of heart disease, recognition and treatment of at least depression, hostility/anger, and chronic psychologic stress may lead to cardiovascular risk reduction through modification of the adverse physiologic and behavioral correlates.

***Gian Mauro Manzoni, PsyD, PhD**
Gianluca Castelnuovo, PysD, PhD
Riccardo Proietti, MD, PhD

*Istituto Auxologico Italiano IRCCS
Psychology Research Laboratory
Ospedale San Giuseppe
Via Cadorna, 90
28824 Piancavallo (Oggebbio-VCO)
Italy
E-mail: gm.manzoni@auxologico.it

doi:10.1016/j.jacc.2010.12.015

REFERENCES

1. Rozanski A, Blumenthal JA, Kaplan J. Impact of psychological factors on the pathogenesis of cardiovascular disease and implications for therapy. Circulation 1999;99:2192–217.
2. Dimsdale JE. Psychological stress and cardiovascular disease. J Am Coll Cardiol 2008;51:1237–46.
3. Chida Y, Steptoe A. The association of anger and hostility with future coronary heart disease: a meta-analytic review of prospective evidence. J Am Coll Cardiol 2009;53:936–46.
4. Denollet J, Pedersen SS. Anger, depression, and anxiety in cardiac patients: the complexity of individual differences in psychological risk. J Am Coll Cardiol 2009;53:947–9.
5. Rosengren A, Hawken S, Ounpuu S, et al. Association of psychosocial risk factors with risk of acute myocardial infarction in 11119 cases and 13648 controls from 52 countries (the INTERHEART study): case-control study. Lancet 2004;364:953–62.
6. Greenland P, Alpert JS, Beller GA, et al. 2010 ACCF/AHA guideline for assessment of cardiovascular risk in asymptomatic adults: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol 2010;56:e50–103.
7. Davidson KW. Emotional predictors and behavioral triggers of acute coronary syndrome. Cleve Clin J Med 2008;75 Suppl 2:S15–9.

Guidelines for Assessment of Cardiovascular Disease in Life Insurance

The Task Force that prepared the 2010 American College of Cardiology Foundation/American Heart Association Guidelines for Assessment of Cardiovascular Risk in Asymptomatic Adults (1) included representatives of societies of echocardiography, nuclear cardiology, imaging, angiography, computed tomography, and cardiovascular magnetic resonance imaging. It is surprising that there were no representatives of the group with the greatest experience and professional interest in the subject—physicians and cardiologists in the life insurance industry. This industry was the first to accept the importance of brachial cuff blood pressure as a measure of risk in 1917 and the first to use radial artery tonometry and pulse waveform analysis to reject applicants for life insurance even earlier (2).

It is surprising too that the views of the task force with respect to aortic stiffness and pulse wave analysis conflict with those of the European Societies of Hypertension and of Cardiology (3), which see the value of such measurements for the prediction of risk. The European societies considered mechanism and history in preparation of their guidelines, whereas the U.S. task force did not—they concentrated on evidence available up to 2009/2010 from identification of "key words." However, none of the key words that relate to arterial aging were considered, not even such basic words as "aging," "aortic stiffness," "pulse wave analyses," "pulse wave velocity," "wave reflection," or "tonometry." If the key words are not sought, the "evidence" will not be available.

There are multiple prospective studies (4–6) that justify a Level of Evidence: A rather than a Level of Evidence: C, including meta-analyses presented by Roman (7) and by Vlachopoulos et al. (5,6).

The purpose of the life insurance industry is to provide the community with life coverage on the basis of the best risk information available. Tests that can be done to stratify risk cannot be invasive or involve radiation, must identify risk over and above conventional risk factors, and must be inexpensive. Pulse wave velocity and pulse waveform analysis appear to provide such information. We would be grateful if this issue could be reconsidered because it applies to the global life insurance industry, which looks to the American College of Cardiology Foundation and the American Heart Association for leadership and guidance.

***Michael F. O'Rourke, MD, DSc**
John Clubb, MBBS

*St Vincent's Clinic
Suite 810
438 Victoria Street
Darlinghurst, Sydney NSW 2010
Australia
E-mail: m.orourke@unsw.edu.au

doi:10.1016/j.jacc.2010.12.016

REFERENCES

1. Greenland P, Alpert JS, Beller GA, et al. 2010 ACCF/AHA guideline for assessment of cardiovascular risk in asymptomatic adults: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol 2010;56:e50–103.
2. Postel-Vinay N. A Century of Arterial Hypertension 1896–1996. Chichester: John Wiley, 1996;39:40–7.
3. Mancia G, De Backer G, Dominiczak A, et al. 2007 Guidelines for the Management of Arterial Hypertension: the Task Force for the Management of Arterial Hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). J Hypertens 2007;25:1105–87.
4. Wang KL, Cheng HM, Sung SH, et al. Wave reflection and arterial stiffness in the prediction of 15-year all-cause and cardiovascular mortalities: a community-based study. Hypertension 2010;55:799–805.
5. Vlachopoulos C, Aznaouridis K, Stefanadis C. Prediction of cardiovascular events and all-cause mortality with arterial stiffness: a systematic review and meta-analysis. J Am Coll Cardiol 2010;55:1318–27.

6. Vlachopoulos C, Aznaouridis K, O'Rourke MF, Safar ME, Baou K, Stefanadis C. Prediction of cardiovascular events and all-cause mortality with central haemodynamics: a systematic review and meta-analysis. Eur Heart J 2010;31:1865–71.
7. Roman M. Central blood pressure and outcome meta analysis. Paper presented at: Annual Meeting of the American Society of Hypertension; May 3, 2010; New York, NY.

Reply

The American College of Cardiology Foundation (ACCF)/American Heart Association (AHA) welcomes letters to inform its ongoing work and encourages such correspondence about its guidelines. Because the ACCF/AHA guideline development process is rigorous and involves several layers of review by the writing committee, external peer reviewers, and participating organizations in the document, the ACCF/AHA cannot respond to each issue raised after a guideline has been published. The information, however, is forwarded to the writing committee chair and oversight task force for review. If any issue is deemed by the ACCF/AHA to affect patient safety, it will be considered immediately. Otherwise, the information will be considered during the next update or revision of the guideline.

***Lisa Bradfield**

*Science and Quality Division
American College of Cardiology
2400 N Street, NW, Room 732
Washington, DC 20037
E-mail: Lbradfie@acc.org

doi:10.1016/j.jacc.2011.02.001

Please note: Lisa Bradfield is part of the ACCF/AHA staff.